



UNCLASSIFIED

Joint Program Executive Office for Chemical and Biological Defense

Biosurveillance Trail Boss

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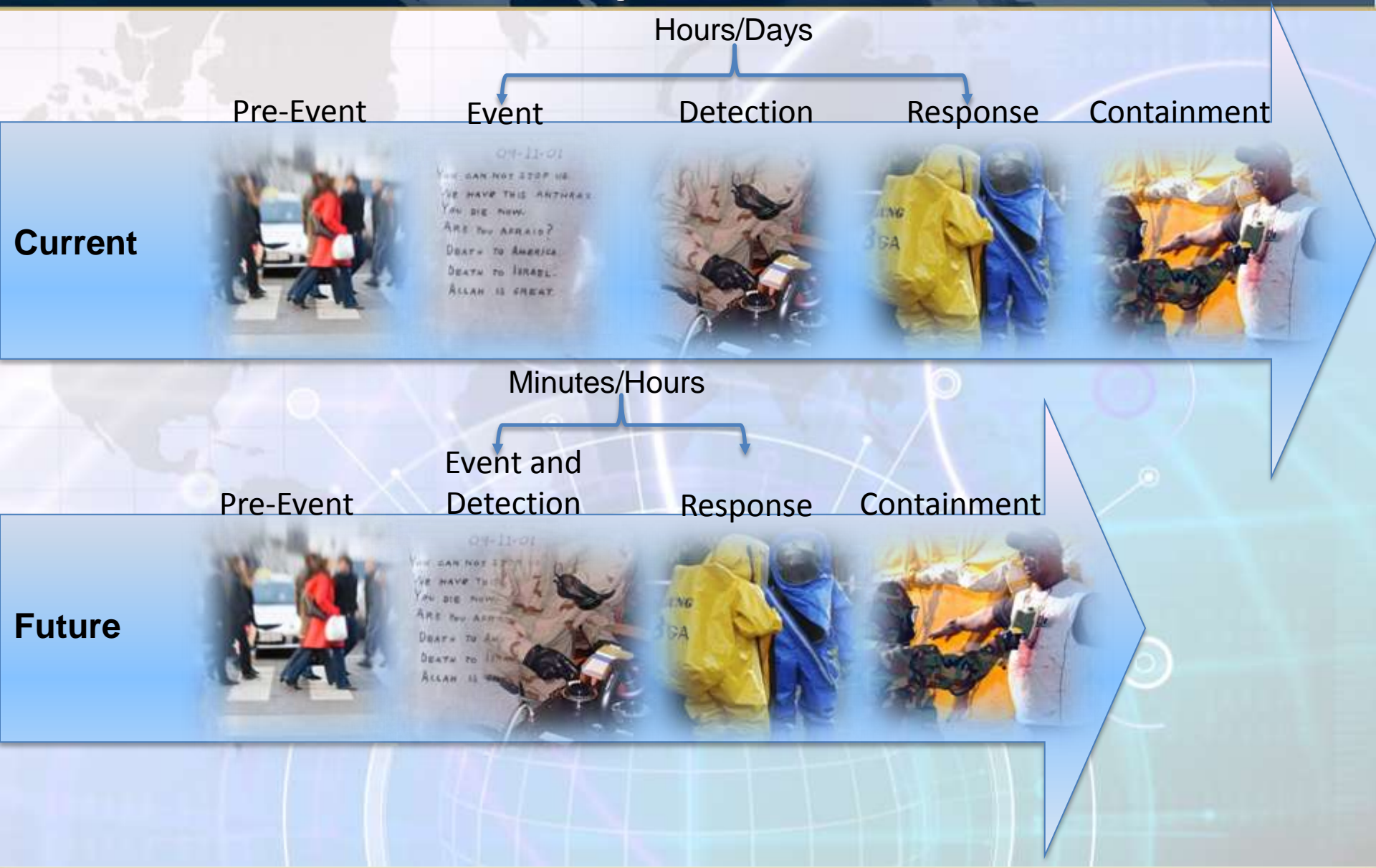
Biosurveillance (BSV) Definition

- **JPEO-CBD/JSTO Adopted the Homeland Security Presidential Directive 21 (HSPD-21), Subject: Public Health and Medical Preparedness, Definition for Biosurveillance as the Most Inclusive and Overarching*:**
- **“The Term “Biosurveillance” Means the Process of Data-gathering with Appropriate Analysis and Interpretation of Biosphere Data that Might Relate to Disease Activity and Threats to Human or Animal Health – Whether Infectious, Toxic, Metabolic, or Otherwise, and Regardless of Intentional or Natural Origin – in Order to Achieve Early Warning of Health Threats, Early Detection of Health Events, and Overall Situational Awareness of Disease Activity.”**

** Definition consistent with draft DoD Biosurveillance Guidance (February 2010)*



Effective Biosurveillance Facilitates A Faster Response To An Event





Life Cycle of Biosurveillance

Functions



Global Awareness

Epidemiology /
Infectious Disease



Passive Monitoring

Environmental /
Syndromic



Active Surveillance

Targeted Health /
Environmental
Screening / Site
Exploitation



Pathogen Identification

Diagnostic /
Environmental



Pathogen Characterization

Prior to
Rapid Therapeutics

Goals

JPEO Strategic Goals are Critical Enablers of Biosurveillance

Outcomes

Biosurveillance Informatics

Data Fusion & Analysis

Pre-Event

Early Warning and Indications
Situational Awareness

Post-Event

Situational Awareness and Predictions
Effective Consequence Management
Persistent Surveillance for Re-emergence



Biosurveillance: Global Approach

** This graphic is a representative example and may not be exhaustive*



In-Reach
Coordinating integration
across the DoD spectrum

Out-Reach
Establishing interagency and international
partnerships to leverage global assets



Biosurveillance Trail Boss

Roles

- Biosurveillance Trail Boss is the Lead for Identifying and Integrating Next-generation and Existing JPEO-CBD Programs/capabilities that are Relevant to Supporting National Biosurveillance Strategies as Defined in Homeland Security Presidential Directive 21 and National Strategy for Countering Biological Threats
- CBMS Includes the JPM Biosurveillance (Provisional) Office which Executes Trail Boss Activities and Brings Together Key BSV Programs under One Leadership (ex. Diagnostics, CRP)

Responsibility

- The Overall Goal of the Biosurveillance Trail Boss is to Integrate the JPEO-CBD Core Competencies Across Internal and External Stakeholders to Achieve Strategic Goals





JPEO-CBD Biosurveillance Investment Strategy

FY10	FY11	FY12	FY13	FY14	FY15	FY16
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Leveraging Common Technological Solutions

Deliver New Capabilities

- Advance diagnostics and environmental detection capabilities against full spectrum of threat agents
- Deliver rapid pathogen characterization and target identification of unknown threats
- Enhance global health surveillance systems to inform DoD, interagency, and international partners of biological threats
- Support integration and fusion of medical, sensor and open source data
- Field enhanced biosurveillance tools to support fusion cells and medical systems



Expand Current Capabilities

- Increase CBRN and infectious disease detection/diagnostic capabilities in fielded systems
- Integrate sensor data into JPEO IM/IT enterprise and MHS networks
- Increase national pathogen collection and reference materials library
- Explore existing biosurveillance tools and fusion cells



Fully Integrated Process That Builds on Existing Relationships

Convergence of Environmental Monitoring and Medical Diagnostics



Needs from Industry to Support Strategic Goals

- **Biosurveillance Informatics**
 - Large Storage Platforms and Tools for Data Fusion (to Include Medical and Environmental Information), Visualization and Analysis
 - Medical Informatics and Public Health Expertise for Accurate Knowledge Dissemination
- **Environmental Detection & Medical Diagnostics**
 - Technologies that are Adaptable/programmable to Detect/diagnose Full Spectrum Bio Threats
 - Revolutionary Technologies: Threat Agnostic, Presymptomatic, Early Indicators of Infection
 - Employ Technologies that have Wide Applications that can be Used to Aggregate Information
 - Decrease Life Cycle Costs through Reuse, Dual Use/multiple Benefits and Increased Operational Efficiencies
- **Partnering and Resource Planning**
 - Expand Collaboration with Public Health and Medical Experts, and First Responder/emergency Planning Committees to Streamline Communication Channels between DoD and Civilian Communities
 - Identify Existing Resources for Collaboration for Increased Communication and Reduced Redundancies
- **Materiel & Infrastructure**
 - Identify Material and Infrastructure Gaps and Implement Strategies
 - Expand Repositories with Relevant Pathogens
- **Coordination / Integration**
 - Program and Information Management Support and IT Expertise
 - Strategic Studies to Inform Biosurveillance Investment and Critical Points of Integration